

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

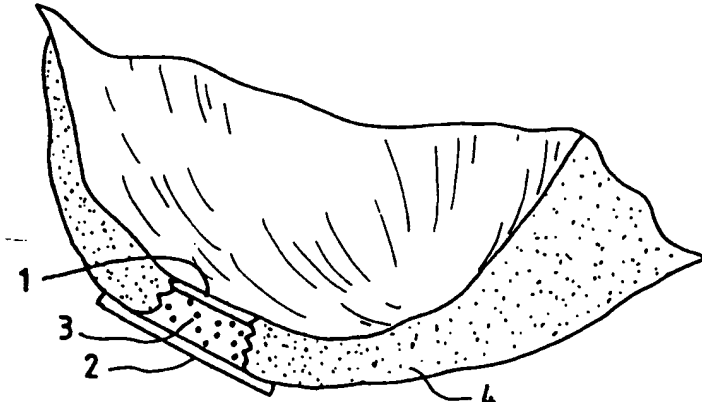
① **BLACK BORDERS**

- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A61F 2/30, A61L 27/00, A61B 17/32		A3	(11) International Publication Number: WO 98/08469
			(43) International Publication Date: 5 March 1998 (05.03.98)
(21) International Application Number: PCT/US97/15258		(74) Agents: CHAO, Mark et al.; McDonnell Bochnen Hulbert & Berghoff, 300 S. Wacker Drive, Chicago, IL 60606 (US).	
(22) International Filing Date: 29 August 1997 (29.08.97)			
(30) Priority Data: 08/704,891 30 August 1996 (30.08.96) US 08/857,090 15 May 1997 (15.05.97) US		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(60) Parent Application or Grant (63) Related by Continuation US 08/704,891 (CIP) Filed on 30 August 1996 (30.08.96)		Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	
(71) Applicant (for all designated States except US): VTS HOLDINGS, LTD. [KN/KN]; Theodore L. Hobson, Main Street, P.O. Box 495, Charlestown, Nevis (KN).		(88) Date of publication of the international search report: 23 April 1998 (23.04.98)	
(72) Inventors; and (75) Inventors/Applicants (for US only): VIBE-HANSEN, Henrik [DK/DK]; Prinseevej 11, DK-2800 Lyngby (DK). LUNDS-GAARD, Charlotte [DK/DK]; Hvidorevej 36, DK-2930 Clampenborg (DK). IDOURAINE, Ahmed [DZ/US]; 2452 E. Springfield Place, Chandler, AZ 85249 (US). OSTHER, Kurt, B. [US/US]; Equestrian Manor, 6030 E. Laurel Lane, Scottsdale, AZ 85254 (US).			
(54) Title: METHOD, INSTRUMENTS AND KIT FOR AUTOLOGOUS TRANSPLANTATION			
(57) Abstract			
<p>Method for the effective transplantation of chondrocytes/cartilage to an articular joint surface defect is taught, as well as a description of certain instruments and kit for practicing the invention.</p>			
			

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon	KR	Republic of Korea	PL	Poland		
CN	China	KZ	Kazakhstan	PT	Portugal		
CU	Cuba	LC	Saint Lucia	RO	Romania		
CZ	Czech Republic	LI	Liechtenstein	RU	Russian Federation		
DE	Germany	LK	Sri Lanka	SD	Sudan		
DK	Denmark	LR	Liberia	SE	Sweden		
EE	Estonia			SG	Singapore		

INTERNATIONAL SEARCH REPORT

Intern. Application No
PCT/US 97/15258

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 A61F2/30 A61L27/00 A61B17/32		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 6 A61F A61B		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 530 804 A (SHAW) 10 March 1993 see abstract; claim 9 ---	14,15
Y	WO 92 22312 A (WADSTRÖM) 23 December 1992 see page 1, line 11 - line 13 see page 2, line 9 - line 19 see page 9, line 14 - line 20 ---	14,15
A	US 4 846 835 A (GRANDE) 11 July 1989 see abstract; claims 1,4 ---	14,15
A	WO 94 00484 A (YOUNG) 6 January 1994 see abstract see page 16, line 4 see page 31, line 1 see page 56, line 4 - line 29 --- -/--	14,15
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "Z" document member of the same patent family		
Date of the actual completion of the international search 13 February 1998		Date of mailing of the international search report 26.02.98
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Klein, C

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

Internat'l Application No
PCT/US 97/15258

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 95 30383 A (BIOSURFACE TECHNOLOGY) 16 November 1995 see abstract; claim 21 ---	14,15
A	US 4 642 120 A (NEVO) 10 February 1987 see abstract; claim 1 ---	14,15
X A	US 5 062 845 A (KUSLICH) 5 November 1991 see column 9, line 63 - column 10, line 8; figures 12-14,16 ---	16 18
Y	US 4 649 918 A (PEGG) 17 March 1987 see the whole document ---	16,18
Y	US 5 403 338 A (MILO) 4 April 1995 see column 2, line 10 - line 16; figures 1,3 ---	16,18
A	US 4 559 936 A (HILL) 24 December 1985 see column 3, line 57 - column 4, line 6; figures 4-6 ---	16
A	US 5 019 108 A (BERTIN) 28 May 1991 see column 6, line 48 - line 56; figure 7 ---	18
A	DE 44 25 456 A (HONL) 21 March 1996 see the whole document ---	18
A	US 4 877 020 A (VICH) 31 October 1989 see column 2, line 15 - line 25; figures 1,4 ---	18
A	US 5 067 964 A (RICHMOND) 26 November 1991 ---	
A	WO 94 09722 A (THM BIOMEDICAL) 11 May 1994 ---	
A	WO 93 11723 A (REGEN CORPORATION) 24 June 1993 -----	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 97/15258

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 530804 A	10-03-93	US 5270300 A	14-12-93
		AU 657888 B	23-03-95
		AU 2541192 A	05-04-93
		CA 2116859 A	18-03-93
		JP 7500741 T	26-01-95
		NO 940764 A	29-04-94
		NZ 244060 A	27-07-97
		WO 9304710 A	18-03-93
		ZA 9206729 A	12-03-93

WO 9222312 A	23-12-92	AU 674126 B	12-12-96
		AU 2149192 A	12-01-93
		EP 0590015 A	06-04-94
		JP 6508363 T	22-09-94
		NO 934592 A	14-02-94
		US 5631011 A	20-05-97

US 4846835 A	11-07-89	NONE	

WO 9400484 A	06-01-94	AU 4543193 A	24-01-94

WO 9530383 A	16-11-95	AU 2468995 A	29-11-95

US 4642120 A	10-02-87	DE 3410631 A	27-09-84
		GB 2137209 A,B	03-10-84
		JP 1839264 C	25-04-94
		JP 59192364 A	31-10-84

US 5062845 A	05-11-91	CA 2007210 A,C	10-11-90
		US 5445639 A	29-08-95

US 4649918 A	17-03-87	NONE	

US 5403338 A	04-04-95	IL 100721 A	05-12-96
		GB 2263407 A,B	28-07-93

US 4559936 A	24-12-85	NONE	

US 5019108 A	28-05-91	NONE	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 97/15258

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 4425456 A	21-03-96	NONE	
US 4877020 A	31-10-89	DE 3505567 A	05-06-86
		JP 61135652 A	23-06-86
US 5067964 A	26-11-91	EP 0528080 A	24-02-93
WO 9409722 A	11-05-94	AU 5445794 A	24-05-94
WO 9311723 A	24-06-93	US 5306311 A	26-04-94
		AU 3229193 A	19-07-93
		CA 2125967 A	24-06-93
		EP 0617598 A	05-10-94
		JP 7505792 T	29-06-95
		US 5624463 A	29-04-97
		US 5681353 A	28-10-97

INTERNATIONAL SEARCH REPORT

Int ernational application No.
PCT/US 97/15258

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-13
because they relate to subject matter not required to be searched by this Authority, namely:
Methods for treatment of the human body by surgery, see PCT-Rule 39.1(iv)
2. ☒ Claims Nos.: 17
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
Claim referring substantially to the drawings, see PCT-Rule 6.2(a)
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest:
☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

MULTIPLE INVENTIONS

1. Claims: 14,15
A kit for chondrocyte and cartilage transplantation comprising a hemostatic barrier, a covering-patch and organic glue.
2. Claims: 16,18
A surgical instrument for sculpting a graft site comprising a cutting edge attached to a handle.